

ABSTRACT

An apparatus and method for electrostatic spray deposition of small targets, such as medical devices like stents. The apparatus includes a target holder which applies a first electrical potential to the target, and an electrostatic dispensing nozzle which applies a second potential sufficient to attract the coating fluid from the nozzle toward the target. Because the entire dispensing nozzle is conductive, the coating fluid may receive a greater charge than may be obtained with internal electrode-type nozzles. Electrostatic attraction of the coating fluid to the target is enhanced by the combination of higher charge density imparted to the coating fluid by the conductive nozzle, and application of a momentary voltage spike to the target to provide consistent conductivity between the target and its holder, thereby ensuring the target is presents the full first potential applied to the holder. The voltage spike may also be used independently of the conductive nozzle.